



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/022,970 | 12/13/2001 | Daniel W. Wong | 1376.0100410 | 7194 |
| 34456 | 7590 | 08/23/2005 | EXAMINER | |
| TOLER & LARSON & ABEL L.L.P. 5000 PLAZA ON THE LAKE STE 265 AUSTIN, TX 78746 | | | HUNG, YUBIN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2625 | |

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,970

Applicant(s)

WONG ET AL.

Examiner

Yubin Hung

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 5, 7, 8, 11-17, 20, 22, 23, 25-52, 55-62 and 65-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37-45 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 7, 8, 11-17, 20, 22, 23, 25-36, 46-52, 55, 56, 59-62 & 65-69 is/are rejected.
- 7) ☒ Claim(s) 57 and 58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment/Arguments

1. This action is in response to amendment filed 06/06/2005, which has been entered.
2. Claims 3, 4, 6, 9, 10, 18, 19, 21, 24, 53, 54, 63 and 64 have been cancelled. Claims 1, 2, 5, 7, 8, 11-17, 20, 22, 23, 25-52, 55-62 and 65-69 are still pending.
3. The corrected Oath/Declaration has not been received; therefore the objection is maintained.
4. In view of Applicant's amend, the 35 U.S.C. 103 rejections of claims 1, 46, 59 and their respective dependent claims have been withdrawn. However, upon further consideration, new grounds of rejections have been made. See below.
5. Applicant's argument, see page 13, last paragraph of the response filed 06/06/2005, with respect to claim 37 has been fully considered and is persuasive. The 35 U.S.C. 103 rejections of claim 37 and its dependent claims 38-45 have been withdrawn.
6. Applicant's arguments filed 06/06/2005 have been fully considered but they are not persuasive; see below.

7. In remarks Applicant argued in substance:

7.1 (regarding claims 16 and 29) *that Lamport does not disclose or suggest a driver for polling (page 11, last paragraph)*

However, Lamport discloses a Hardware Polling Routine that is executed by the SCP [col. 36, lines 38-40] to carry out the polling. The routine (the actual code running in the SCP) is described by a pseudo-code listed in Appendix 1. The routine is therefore the driver. (In the Office action mailed 01/06/05, the rejection of claim 16 recited "the *pseudo-code* is considered the driver" is clearly a typo. One of ordinary skill in the art would have recognized this and understood that the actual code (i.e., the routine) running in the SCP was what was meant).

7.2 (regarding *amended* claim 1) *that Matsunoshita fails to disclose transformed error correction data in any manner (page 12, 4th paragraph, lines 1-4)*

It is clear that the argument is directed to the original rejections of claims 4, 6, 19 and 21 (the last two have been incorporated into amended claim 1). However, Matsunoshita was not relied upon to disclose or suggest this feature. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642

Art Unit: 2625

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

7.3 Applicant's remaining arguments are directed to *amended* independent claims 1, 46 and 59 and their remaining dependent claims; for the dependent claims, the argument for allowability is dependency. Consequently they will not be addressed here. In stead, the amended claims are analyzed in the claim rejection section below.

Detailed Action

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 5, 7, 8, 11, 20, 22, 23, 25, 30-36, 46, 47, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817) and Matsunoshita (US 5,835,691).

10. Regarding claim 1, Saha discloses

- receiving transformed error correction data
[Fig. 4, refs. 402; Col. 3, lines 3-10 (indicating that the DCT results are transformed difference, or error, data, per P. 6, lines 3-4 of the application); Col. 10, lines 21-23]
- determining if an error of the transformed error correction data has occurred
[Fig. 4, refs. 404, 416; Col. 10, line 41 - Col. 11, line 30 (error types); Col. 11, lines 31-43]
- providing an error indicator when it is determined an error has occurred
[Fig. 4, refs. 404, 418; Col. 11, lines 31-43; Col. 11, lines 65-67; Col. 14, lines 21-24]

Saha does not expressly disclose that the error is at least one of an underflow error or an overflow error.

Art Unit: 2625

However, Matsunoshita teaches/suggests the detection of overflow and underflow error conditions. [Fig. 2, ref. 208; Fig. 5, refs. 208, 209; Col. 12, lines 32-36; Col. 17, lines 11-16.]

Saha and Matsunoshita are combinable because they have aspects that are from the same field of endeavor of video coding/decoding.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Saha with the teachings of Matsunoshita by specifically determining an overflow error and/or an underflow error. The motivation would have been to be able to detect such common error conditions in order to carry out corrective measures, as Matsunoshita indicated in column 13, lines 35-50 and column 15, lines 29-46].

Therefore, it would have been obvious to combine Matsunoshita with Saha to obtain the invention of claim 1.

11. Regarding claim 5, and similarly claim 20, Matsunoshita further discloses

- extraneous transformed error correction data is ignored when an overflow error has been determined
[Col. 13, lines 48-50]

12. Regarding claims 7-8, and similarly claims 22-23 and 33-35, Saha further discloses

- (claim 7) completing a set of transformed error correction data with predetermined values when an underflow has been detected and wherein

Art Unit: 2625

(claim 8) the predetermined values include zeros
[Col. 12, lines 12-14 and 25-27]

13. Regarding claim 11, and similarly claim 25, Matsunoshita further discloses

- providing the error indicator includes generating an interrupt
[Col. 15, lines 34-37]

14. Regarding claims 30-32, Saha further discloses

- (claim 30) the transformed error correction data is related to multimedia data
(claim 31) the multimedia data includes video data
(claim 32) the transformed error correction data is discrete cosine transformed (DCT) data relating to video error correction data
[Fig. 2: refs. 200, 201 (multimedia including audio and video); Fig. 4, ref. 410 and Col. 3, lines 5-9]

15. Regarding claim 36, Matsunoshita further discloses

- the error characteristic includes errors during the submission of processed transformed error correction data
[Col. 12, lines 15-31. Note that overflow condition occurs during the transferring (i.e., submission) of data]

16. Regarding claim 46, the combined invention of Saha and Matsunoshita discloses

- determine if an underflow error or an overflow error has occurred, wherein the error is related to transformed error correction data
[Per the analysis of claim 1]

In addition, Saha and Matsunoshita further teach/suggest

- apply corrective measures when an overflow or underflow error has occurred
[Saha: col. 12, lines 12-14; Matsunoshita: Col. 13, lines 35-50]

[Note that while not expressly disclosed by Saha and Matsunoshita, It would have been obvious to one of ordinary skill in the art at the time of the invention to write a program

Art Unit: 2625

of instructions to implement the above method and to store the program in a computer readable medium (e.g., a hard drive, a RAM or firmware) so that later on it can be retrieved and executed by the device.]

17. Regarding claim 47, Matsunoshita further teaches/suggests

- detecting an interrupt generated in response to an error
[Col. 15, lines 37-46.]

18. Regarding claims 55 and 56, Matsunoshita further discloses

- (claim 55) determining an error characteristic associated with the error
(claim 56) corrective measures include clearing data buffers
[Col. 13, lines 35-50. Note that the characteristic of the error is overflow. Note further that discarding the coded data, i.e., clearing data buffers, is a corrective measure]

19. Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817) and Matsunoshita (US 5,835,691) as applied to claims 1, 5, 7, 8, 11, 20, 22, 23, 25, 30-36, 46, 47, 55 and 56 above, and further in view of Paik et al. (US 5,216,503).

20. Regarding claims 2, the combined invention of Saha and Matsunoshita discloses all limitations of its parent, claim 1.

The combined invention of Saha and Matsunoshita does not expressly disclose

- the transformed error correction data includes multiple channels of transformed error correction data

Art Unit: 2625

However, Paik teaches/suggests a multi-channel compression system for coding multiple channels of compressed video stream. [Fig. 1, refs. 10-28; Fig. 5; Col. 4, lines 53-64.]

The combined invention of Saha and Matsunoshita is combinable with Paik because they have aspects that are from the same field of endeavor of video coding/decoding.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Saha and Matsunoshita with the teachings of Paik by including multiple channels of data. The motivation would have been to be able to achieve a targeted compression ratio without introducing visible artifacts into reconstructed video images, as Paik indicates in [Col. 1, lines 48-53].

Therefore, it would have been obvious to combine Paik with Saha and Matsunoshita to obtain the invention of claim 2.

21. Claims 12-14, 17, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817), Matsunoshita (US 5,835,691) and Paik et al. (US 5,216,503) as applied to claim 2 above, and further in view of IBM-TDB (IBM TDB-ACC-NO: NN9405527. Title: "Method for Logging Concurrent Error Information", May 1994).

22. Regarding claims 12-14, 17 and similarly claims 26-27, the combined invention of Saha, Matsunoshita and Paik discloses all limitations of their parent, claims 1 and 2.

The combined invention of Saha, Matsunoshita and Paik does not expressly disclose

- (claim 12) providing the error indicator includes setting a flag and
(claim 13) separate flags are set for different error identifiers and
(claim 14) separate flags are set for different channels and
(claim 17) separate error indicators are provided for different error channels

However, IBM-TDB teaches/suggests all of the above limitations. [Disclosure text: lines 10-11. Note that since channels are associated with errors (different channels can have the same error), different channel-error combinations constitute different errors and it would have been obvious to one of ordinary skill in the art at the time of the invention to use separate flags for them. Further note that since providing error indicator includes setting a flag and separate flags correspond to different channels, it follows that error indicators are provided for different error channels]

The combined invention of Saha, Matsunoshita and Paik is combinable with IBM-TDB because they have aspects that are from the same field of endeavor of error logging.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Saha, Matsunoshita and Paik with the teachings of IBM-TDB by including identifiers to identify error characteristics. The motivation would

Art Unit: 2625

have been to be able to tell what specific error has occurred in order to apply the corresponding corrective action.

Therefore, it would have been obvious to combine IBM-TDB with Saha, Matsunoshita and Paik to obtain the invention of claims 12-14, 17, 26 and 27.

23. Claims 15-16 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817), Matsunoshita (US 5,835,691), Paik et al. (US 5,216,503) and IBM-TDB (IBM TDB-ACC-NO: NN9405527. Title: "Method for Logging Concurrent Error Information", May 1994) as applied to claims 12-14, 24, 26 and 27 above, and further in view of Lamport et al. (US 5,138,615).

24. Regarding claim 15, and similarly claim 28, the combined invention of Saha, Matsunoshita, Paik and IBM-TDB discloses all limitations of its parent, claim 14.

The combined invention of Saha, Matsunoshita, Paik and IBM-TDB does not expressly disclose

- the separate flags are polled to determine an error has occurred

However, Lamport teaches/suggests polling error flags to determine an error has occurred. [Fig. 8, ref. 216; Fig. 12, ref. 382; Col. 36, lines 28-32.]

Art Unit: 2625

The combined invention of Saha, Matsunoshita, Paik and IBM-TDB is combinable with Lamport because they have aspects that are from the same field of endeavor of error detection.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Saha, Matsunoshita, Paik and IBM-TDB with the teachings of Lamport by polling error flags to determine an error has occurred. The motivation would have been polling is a well-established technique to determine the status of multiple entities (e.g., flags) and can be efficiently implemented.

Therefore, it would have been obvious to combine Lamport with Saha, Matsunoshita, Paik and IBM-TDB to obtain the invention of claim 15.

25. Regarding claim 16, and similarly claim 29, Lamport further discloses

- a driver is used to perform the polling
[Col. 36, lines 38-40. Note that the routine described by the pseudo-code is considered a driver]

26. Claims 48-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817) and Matsunoshita (US 5,835,691), as applied to claims 1, 5, 7, 8, 11, 20, 22, 23, 25, 30-36, 46, 47, 55 and 56 above, and further in view of Lamport et al. (US 5,138,615).

27. Regarding claim 48, the combined invention of Saha and Matsunoshita discloses all limitations of its parent, claim 46.

The combined invention of Saha and Matsunoshita does not expressly disclose

- Determining if a flag which has been set (in response to an error)

However, Lamport teaches/suggests polling error flags to determine an error has occurred. [Col. 36, lines 28-32.]

The combined invention of Saha and Matsunoshita is combinable with Lamport because they have aspects that are from the same field of endeavor of error detection.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Saha and Matsunoshita with the teachings of Lamport by polling error flags to determine an error has occurred. The motivation would have been polling is a well-established technique to determine the status of multiple entities (e.g., flags) and can be efficiently implemented.

Therefore, it would have been obvious to combine Lamport with Saha and Matsunoshita to obtain the invention of claim 48.

28. Regarding claims 49 and 50, Lamport further discloses

- (claim 49)the flag is cleared once it has been read
(claim 50)individual flags of a plurality of flags are polled to

Art Unit: 2625

determine if an error has occurred
[Col. 36, lines 28-32]

29. Regarding claim 51, OFFICIAL NOTICE is taken that it is well known in the art to assign different flags to different error conditions. (The motivation for doing so would have been to be able to relate different corrective measure with different flags so that the best action can be taken accordingly.)

30. Regarding claim 52, Saha further discloses

- the error-characteristics include error types
[Col. 10, line 40-Col. 11, line30]

31. Claims 59, 62, 65 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817) and Matsunoshita (US 5,835,691) as applied to claims 1, 5, 7, 8, 11, 20, 22, 23, 25, 30-36, 46, 47, 55 and 56 above, and further in view of Matsuoka (US 4,599,608) and Shirley (US 5,657,277).

32. Regarding claim 59, Saha and Matsunoshita disclose

- a data processor
[Saha: Fig. 2, ref. 228]
- a memory having coupled to the data processor, the memory capable of storing code to control said data processor to:
 - determine if an underflow or an overflow error has occurred, wherein the error is related to transformed error correction data; and
 - apply corrective measures when an underflow or an overflow error has occurred;[Saha: Fig. 2, ref. 204. Note that it is obvious that the memory is capable of storing code to perform the recited functions. Per the analysis of claim 1 (where Matsunoshita is applied), the error is either an underflow or an overflow error]
- hardware coupled to said memory, said hardware including;

Art Unit: 2625

an inverse transform component to:
 receive transformed error correction data, wherein the transformed error correction data is related to a set of image data; and
 process said transformed error correction data to generate inverse transformed results;
determine if an error characteristic of the transformed error correction data has occurred; and
provide an error indicator when it is determined an error characteristic has occurred; and
a motion compensation processing component, wherein the motion compensation processing component to:
 receive the motion compensation vector data, wherein the motion compensation vector data is related to said set of image data;
 retrieve the inverse transformed results related to the set of image data, based upon the step of receiving motion compensation vector data; and
 process the motion compensation vector data and the inverse transformed results to generate at least part of an image
[Saha: Fig. 2, refs. 204, 228 (the "hardware"); Fig. 3, refs. 204, 228, 306 (embodies both inverse DCT and motion compensation); Fig. 4, refs. 306, 402 (receive transformed data), 404-410 (process received data), 416-426 (determine existence of error and provide indicator), 410-414 & 428 (motion compensation and image generation); Col. 10, lines 21-40; Col. 11, line 31-Col. 12, line 50]

Saha and Matsunoshita do not expressly disclose that both the processor and the memory have an I/O buffer and that the memory's I/O buffer is coupled to that of the processor's.

However, Matsuoka teaches/suggests using a processor with an I/O buffer that is coupled to a bus [Fig. 2, ref. 5; Fig. 3, refs. 5, 10, 16, 20; Col. 3, lines 13-14] and Shirley teaches/suggests using a memory with an I/O buffer that is coupled to buses [Fig. 2, refs. 10-14, 22-28; Fig. 3, refs. 30, 31, 38; Col. 3, lines 24-47. Note that it would have been obvious to one of ordinary skill at the time of the invention to couple the respective I/O buffers via the bus(es) since each of them individually is.]

Art Unit: 2625

The combined invention of Saha and Matsunoshita is combinable with Matsuoka and Shirley because they have aspects that are from the same field of endeavor of data input and output.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Saha and Matsunoshita with the teachings of Matsuoka and Shirley by using processors and memories with I/O buffers and couple them via their respective buffers. The motivation would have been because processors and memories with I/O buffers are widely available and their use can eliminate the need for separate I/O buffer modules and thus can reduce cost.

Therefore, it would have been obvious to combine Matsuoka and Shirley with Saha and Matsunoshita to obtain the invention of claim 59.

33. Regarding claim 62, Saha further discloses

- the error characteristic includes an error type
[Col. 10, line 41 - Col. 11, line 43]

34. Regarding claim 65, Saha further discloses

- the transformed error correction data includes DCT image data
[Fig. 4, ref. 410 and Col. 3, lines 5-9]

35. Regarding claim 66, Saha further discloses

- the generated inverse transformed results represent a predetermined set of data when an error has occurred related to the transformed error correction data
[Col. 12, lines 12-14 and 25-27]

36. Claim 60, 67 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817), Matsunoshita (US 5,835,691), Matsuoka (US 4,599,608) and Shirley (US 5,657,277), as applied to claims 59, 62, 65 and 66, and further in view of Paik et al. (US 5,216,503).

37. Regarding claims 60, the combined invention of Saha, Matsunoshita, Matsuoka and Shirley discloses all limitations of its parent, claim 59.

The combined invention of Saha, Matsunoshita, Matsuoka and Shirley does not expressly disclose

- the transformed error correction data includes a plurality of channels of transformed error correction data

However, Paik teaches/suggests a multi-channel compression system for coding multiple channels of compressed video stream. [Fig. 1, refs. 10-28; Fig. 5; Col. 4, lines 53-64.]

The combined invention of Saha, Matsunoshita, Matsuoka and Shirley is combinable with Paik because they have aspects that are from the same field of endeavor of video coding/decoding.

Art Unit: 2625

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Saha, Matsunoshita, Matsuoka and Shirley with the teachings of Paik by including multiple channels of data. The motivation would have been to be able to achieve a targeted compression ratio without introducing visible artifacts into reconstructed video images, as Paik indicates in [Col. 1, lines 48-53].

Therefore, it would have been obvious to combine Paik with Saha, Matsunoshita, Matsuoka and Shirley to obtain the invention of claim 60.

38. Regarding claim 67, Matsunoshita further discloses

- providing the error indicator includes generating an interrupt
[Col. 15, lines 34-37]

39. Regarding claim 69, Matsunoshita further discloses

- corrective measures include clearing data buffers 2 associated with transformed error correction data
[Col. 13, lines 48-50]

40. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817), Matsunoshita (US 5,835,691), Matsuoka (US 4,599,608), Shirley (US 5,657,277) and Paik et al. (US 5,216,503) as applied to claims 60, 67 and 69 above, and further in view of Elkind (US 5,832,003).

Art Unit: 2625

41. Regarding claim 61, the combined invention of Saha, Matsunoshita, Matsuoka, Shirley and Paik discloses all limitations of its parent, claim 60.

The combined invention of Saha, Matsunoshita, Matsuoka, Shirley and Paik does not expressly disclose

- the error characteristic indicates identifying a transformed error correction data channel associated with error

However, Elkind teaches/suggests identifying the channels that produce errors. [Col. 2, lines 66-67.]

The combined invention of Saha, Matsunoshita, Matsuoka, Shirley and Paik is combinable with Elkind because they have aspects that are from the same field of endeavor of video error checking.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Saha, Matsunoshita, Matsuoka, Shirley and Paik with the teachings of Elkind by indicating the channel that is associated with an error. The motivation would have been to be able to take corrective action only on the channels where the error occurs, for the obvious efficiency reason.

Therefore, it would have been obvious to combine Elkind with Saha, Matsunoshita, Matsuoka, Shirley and Paik to obtain the invention of claim 61.

42. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saha et al. (US 6,404,817), Matsunoshita (US 5,835,691), Matsuoka (US 4,599,608) and Shirley (US 5,657,277), as applied to claims 59, 62, 65 and 66 above, and further in view of IBM-TDB (IBM TDB-ACC-NO: NN9405527. Title: "Method for Logging Concurrent Error Information", May 1994).

43. Regarding claim 68, the combined invention of Saha, Matsunoshita, Matsuoka and Shirley discloses all limitations of its parent, claim 59.

The combined invention of Saha, Matsunoshita, Matsuoka and Shirley does not expressly disclose

- Providing the error indicator includes setting a flag

However, IBM-TDB teaches/suggests setting flags. [Disclosure text: lines 10-11.]

The combined invention of Saha, Matsunoshita, Matsuoka and Shirley is combinable with IBM-TDB because they have aspects that are from the same field of endeavor of error logging.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Saha, Matsunoshita, Matsuoka and Shirley with the

teachings of IBM-TDB by setting flags. The motivation would have been to be able to record additional about the error that can help in debugging events, as IBM-TDB indicates in lines 10-11 of the disclosure text.

Therefore, it would have been obvious to combine IBM-TDB with Saha, Matsunoshita, Matsuoka and Shirley to obtain the invention of claim 68.

Allowable Subject Matter

44. Claims 37-45 are allowed.

45. Claims 57 and 58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

46. The following is a statement of reasons for the indication of allowable subject matter:

49.1 Regarding claim 37 (and similarly claim 57), closest art of record Saha et al. (US 6,404,817) discloses performing error detection on received transformed data and determining if an error has been found in the transformed [Fig. 4; column 11, line 31-column 12, line 41] and Elkind (US 5,832,003) teaches/suggests identifying channels

Art Unit: 2625

associated with errors [column 2, lines 66-67]. In addition, Hamlin (US 6,310,888) discloses detecting error in the received and if no error is found, then determining whether the data is encrypted (i.e., protected) [Fig. 7; col. 9, lines 19-41]. However, none teach or suggest determining whether there exists an error in the received data first and if so, determining if the error is associated with a set of protected data.

Contact Information

47. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Art Unit: 2625

48. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yubin Hung whose telephone number is (571) 272-7451. The examiner can normally be reached on 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Yubin Hung
Patent Examiner
August 10, 2005



SANJIV SHAH
PRIMARY EXAMINER